Joint Capabilities Integration and Development System (JCIDS) Changes

Sources:

- CJCSI 3170.01H, 10 Jan 2012
- CJCSI 5123.01F, 10 Jan 2012
- JCIDS Manual, 19 Jan 2012
- JCIDS Manual Errata, J-8, 20 Sep 2012
- Interim DoDI 5000.02, 26 Nov 2013

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Addressing JCIDS Criticism

Major Criticisms of the JCIDS Process:

- Solution development and delivery are not timely
- Decisions are made late to need or with poorly scoped information
- Process is complex, cumbersome and too document-centric
- Lacks mechanisms to focus review across portfolios
- Does not control “requirements creep”
- Does not include key customers (Combatant Commands (CCMDs)) in the decision process
- Does not have tracking mechanisms to trace developments from gap identification through solution fielding

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Law and Policy

- Title 10 Responsibilities (as modified by 2009 Weapon System Acquisition Reform Act and 2011 National Defense Authorization Act)
  - The Joint Requirements Oversight Council (JROC) shall assist the Vice Chairman, Joint Chiefs of Staff (VCJCS)…
    - In making cost, schedule, and performance trades
    - In prioritizing joint military requirements
  - The JROC must…
    - Consider input from Combatant Commanders on joint requirements
    - Consider cost, schedule and performance tradeoffs in establishing requirements
    - Set an Initial Operational Capability (IOC) schedule objective for each requirement
- All the Above Emphasized in the JROC Charter (CJCSI 5123 series)
- More Than Any Other Body,

What Has Happened in the Past

- Construct Ineffective; Does Not Encourage/Promote Incisive Questions/Discussions
  - Little consideration of cost/schedule/performance tradeoffs
  - No prioritization within and across portfolios…little to no risk analysis
  - Document and process intensive -- bureaucratic and time consuming
  - Little impact on shaping the force
- Congressional Question for the Record (Gen Dempsey Confirmation Hearing)
  - “General Dempsey, what’s the remedy for Admiral Mullen’s belief that DoD has ‘lost the ability to prioritize, to make hard decisions, to do tough analysis, to make trades’?”
- JROC Criticisms (Defense Science Board, Defense Business Board, Government Accountability Office,…)
  - Not making the hard decision regarding

Where are We Going

Take the Lead in Shaping the Force:

- Debate the difficult issues and make difficult choices earlier
- Better upfront fidelity on cost/schedule/performance tradeoffs
- More analytic rigor and risk/portfolio analysis
- Stronger emphasis on prioritizing requirements/ capabilities
- More dynamic/iterative process throughout a program's lifecycle. (Revisit as necessary… strategy shifts, threat changes, etc.)

Create a More Dynamic and Iterative Process… Make Difficult Choices Throughout the

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How We are Getting There

- Limit the Audience so Determinative Discussion/ Decisions can be Made
  - More Tank-like
  - JROC Principals+1, Combatant Command (CCMD) Principals+1
  - Statutory Advisors or their Deputy:
    - Under Secretary of Defense (Acquisition, Technology & Logistics) (USD(AT&L), Under Secretary (Policy) (USD(P), Under Secretary (Comptroller) (USD(C), Director, Cost Assessment & Program Evaluation (CAPE), and Director, Operational Test & Evaluation (DOT&E)
  - Joint Staff J-7
  - Functional Capability Board (FCB) Chair
  - Minimal others by invitation only…
- Cost vs. Capability vs. Risk – Better Upfront Analysis of Alternatives
  - FCB Review of Analysis of Alternatives (AoA) prior to Milestone A
  - Highlight non-materiel approaches as alternative or in conjunction with materiel solutions
  - Tee up the appropriate debate
    - Tougher decisions on the 80% solution (i.e. knee in the curve)
    - More portfolio analysis to determine risk

Recent Changes to JCIDS

- Consolidated Four Instructions Into Two and JCIDS Manual
  - CJCSI 5123 (JROC Charter) and CJCSI 3170 (JCIDS), 10 Jan 2012
  - JCIDS Manual, 19 Jan 2012
  - Cancelled: CJCSI 3137 (FCBs) and CJCSI 3470 (JUONs)
- Adjusted JROC Venue to be More Tank-like with FCBs Briefing Issues and Providing Portfolio-Level Assessment
  - Incorporated SAP Aspects into the discussion
- Requires FCB Joint Prioritization of all Capability Requirements Within Their Portfolio
- Stand Up of the SAP Integration Group to Comprehensively Integrate

Recent Changes to JCIDS (Con't)

- Validation Decision Considers Cost, Schedule, Performance and Quantity Targets in JROC Memoranda (JROCMs) as Appropriate with Expanded Tripwire Process
- Clarified the Ability of the JROC to Call for a Review of Previously Validated Requirements/Programs
- Mandated Shorter Document Lengths
- Applied "Information Technology Box" (IT Box) Construct to Initial Capabilities Documents (ICDs) – Information System (IS) ICD, to Allow Greater Flexibility and Response to Evolving Technologies
- Require Studies Notification and Repository
- Use of Capability Development Tracking & Management (CDTM) Tool for Document Generation (exceptions: Information Systems Initial Capabilities Document (ICD), Urgent Operational Needs documents, and above SECRET documents).
- Formalized Capability Gap Assessment (CGA) Process –

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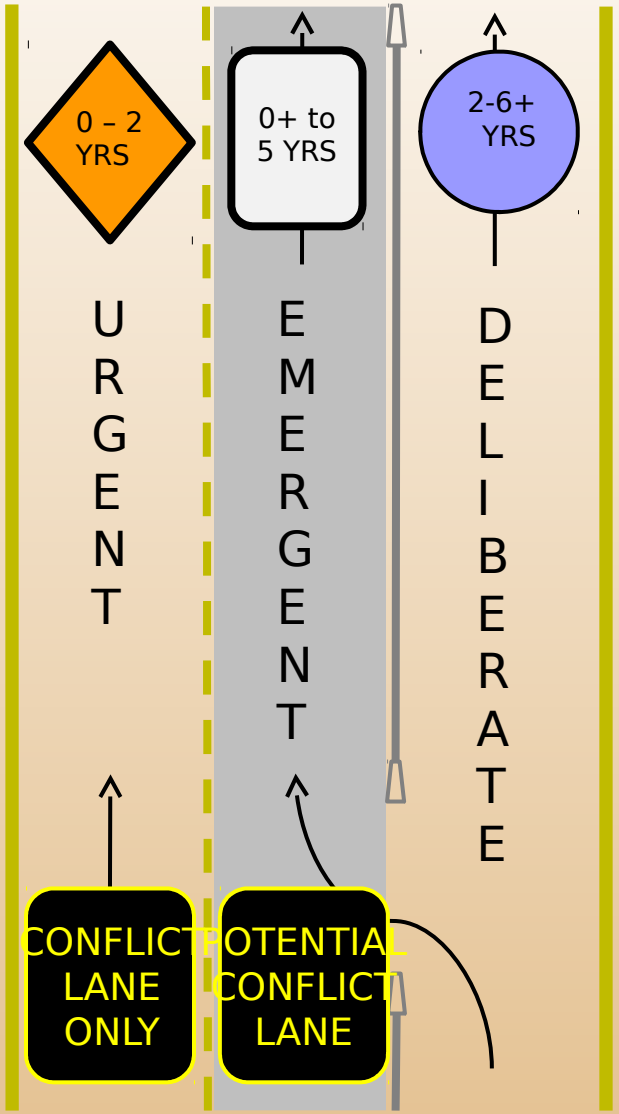
Recent Changes to JCIDS (Con't)

- Incorporates Pre-Milestone A Review of AoA Results in Support of Providing Cost/Schedule/Performance Recommendations to the Milestone Decision Authority (MDA)
- Requires Draft Capability Development Document (CDD) (Component-Level; Not Submitted to Joint Staff) to Support Technology Maturation & Risk Reduction Phase
- Interim DoDI 5000.02, 26 Nov 2013, Requires Validated CDD to Support the Development RFP Decision Point
- Greater J-7 Role to Emphasize Non-Materiel Solutions and Considerations to Capability Gaps
- Streamlines Joint Staff Procedures and Timelines by 50% to Increase Effectiveness and Responsiveness of the Requirements Development Process
- Provides Three Lanes to Requirements Development to Respond to Capability Gaps within Acceptable Timeframes and Risks - Deliberate, Urgent, and Emergent

Three Requirements “Lanes”

“Keep right, except to pass”



- **Deliberate Requirements**
  - Service, CCMD or Agency Driven
  - Traditional route for capabilities that require significant tech development and/or are not urgent or compelling in nature
- **Emergent Requirements**
  - CCMD Driven
  - Supports accelerated acquisition of capabilities needed for an anticipated or pending contingency operation
  - VCJCS verifies, JCB or JROC validates
- **Urgent Requirements**
  - CCMD Driven
  - Urgent and compelling to prevent loss of life and/or mission failure during current operations
  - Require little tech development and can

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Urgent vs. Emergent Situations

Urgent Situations (Joint Urgent Operational Need (JUON))

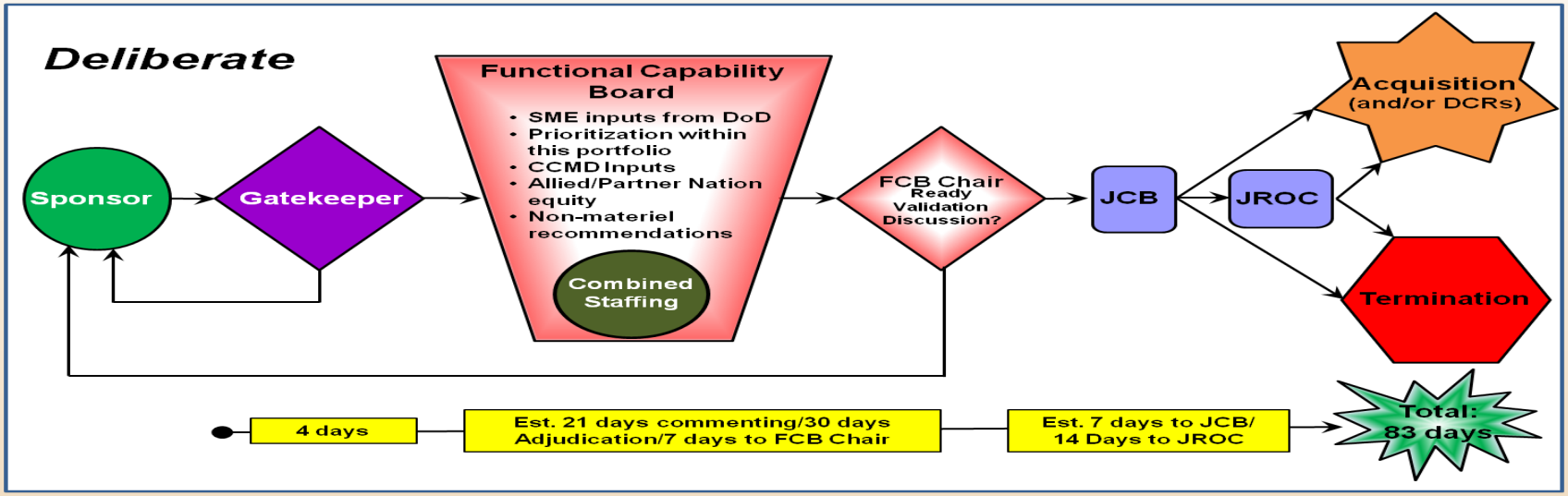
- Ongoing conflict or crisis
- Failure to act will result in:
  - Direct enemy-action related loss of life and/or
  - Critical mission failure
- JUON Validated by J-8, DDR
- *Staffing goal of 15 days*

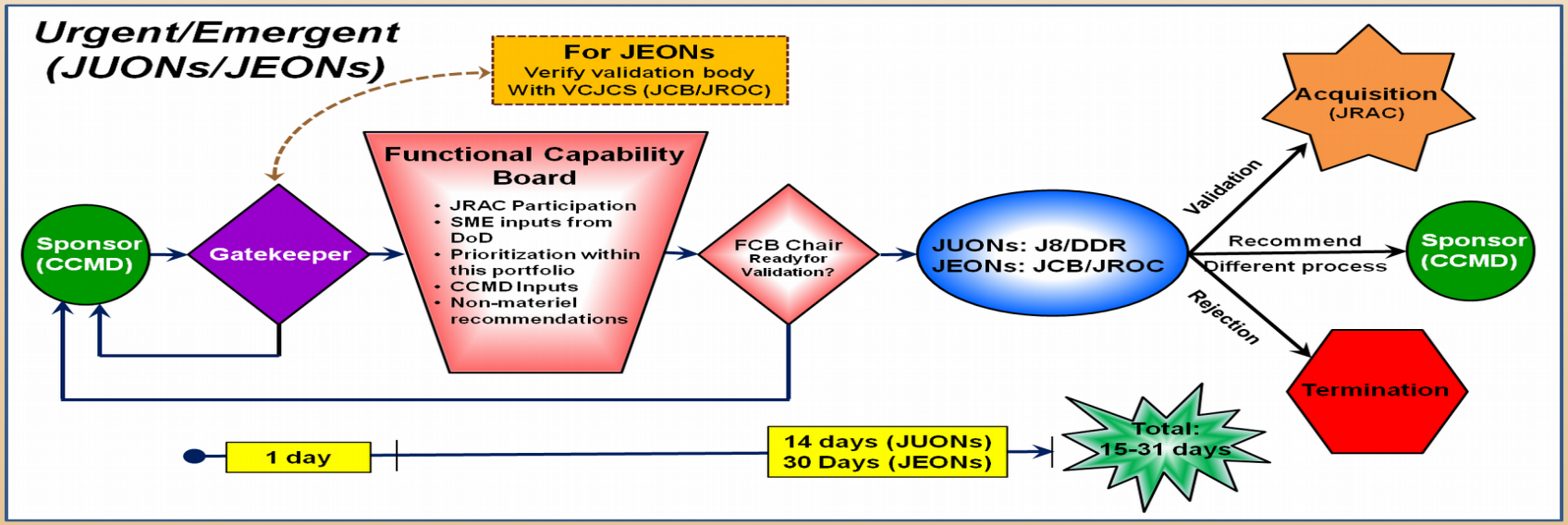
Emergent Situations (Joint Emergent Operational Need (JEON))

- Anticipated or pending contingency operation
- Must act before operations commence to avoid:
  - Enemy-action related loss of life and/or
  - Critical mission failure
- Must be verified by VCJCS validation authority, JCB or JROC

Sponsors must provide an assessment of operational utility within 90 days of initial fielding (format in JCIDS Manual)

Deliberate and Urgent/Emergent Staffing





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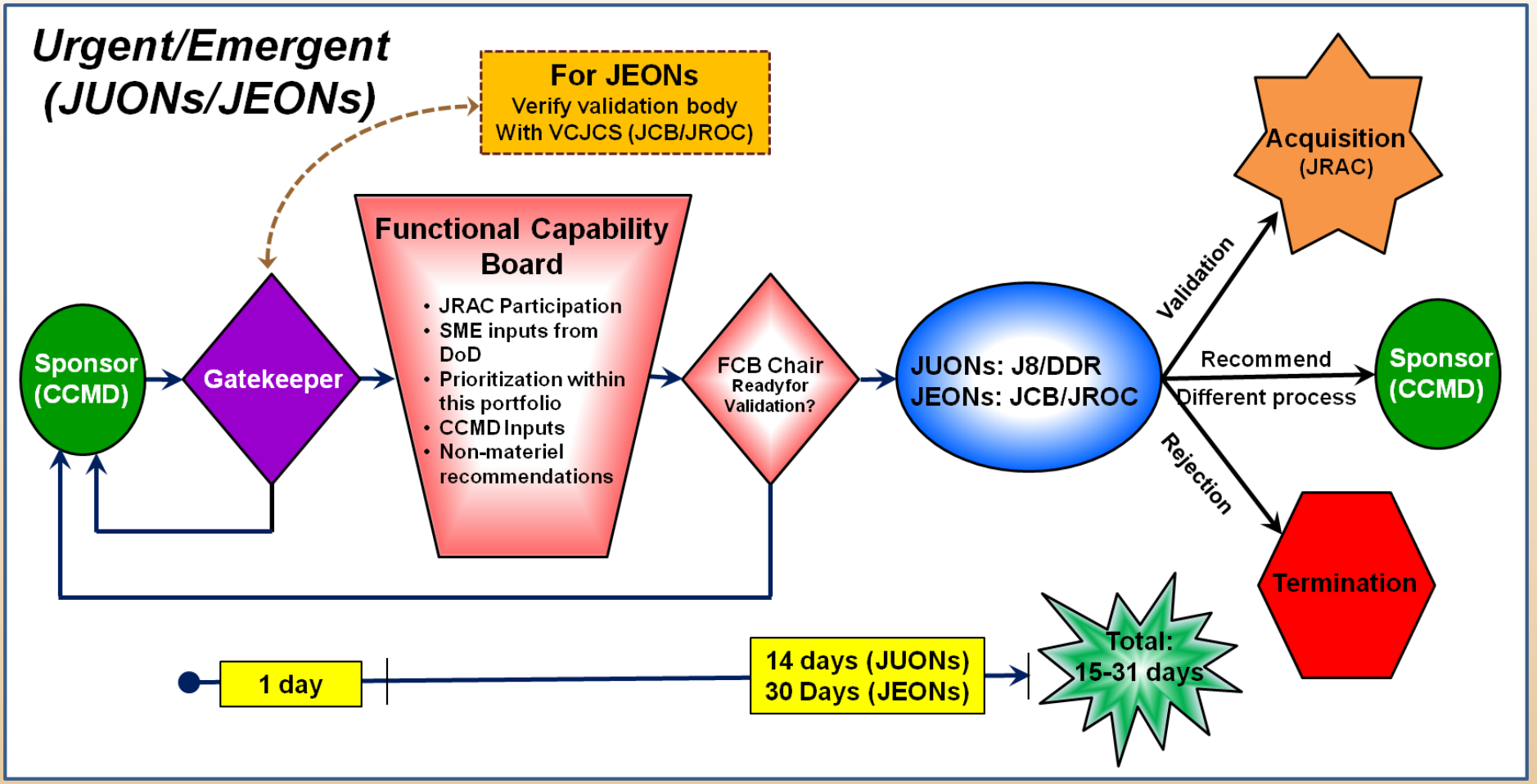
Urgent/Emergent Staffing



Joint Prioritization

- Each FCB Will Establish Joint Priorities for all Capability Requirements Submitted for Their Portfolios in ICDs, JEONs, JUONs, or DoD Component UONs
- Successor Documents – CDDs, CPDs, and Joint DOTmLPF-P Change Recommendations (Joint DCRs) Do Not Require Additional Prioritization Unless Submitted Without a Preceding ICD
- Joint Priorities are Established During the FCB JCIDS Document Staffing Process
- Sponsor Priorities *"will not be considered during FCB assessments of joint priorities"*

DOTmLPF-P: Doctrine, Organization, Training, materiel, Leadership & Education, Personnel Facilities and Policy

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JCB/JROC Tripwire

- JROC/JCB Tripwire is a JROC Process Established to Review JROC and JCB Interest Programs That Deviate From Cost, Schedule, or Quantity Targets Established at the Time of Validating CDDs or Capability Production Documents (CPDs).
- Programs Must Return to the JROC or JCB for Revalidation if they Experience:

  Cost. Cost growth equal to or greater than 10 percent over their current baseline or 25 percent over their original baseline as defined in the Acquisition Program Baseline (APB).

  Schedule. Schedule slip for Initial Operational Capability (IOC) or Full Operational Capability (FOC) equal to or greater than 12 months from IOC and FOC targets set in the validation JROC Memorandum (JROCM).

  Quantity. Reduction in end-item quantities equal to or greater than 10 percent from a quantity target set in the validation JROCM.

- Lead FCB Initiates a Tripwire Review Based Upon First Knowledge

Interaction With Other Processes

- JCIDS Manual Describes JCIDS Interaction with the Following Processes.
  - Integrated Priority Lists (IPLs)/Capability Gap Assessment (CGA)
  - JROC/JCB Tripwire
  - Nunn-McCurdy Cost Breaches
  - Major Automated Information System (MAIS) Critical Change Reports
  - Program and Budget Review
  - Chairman's Program Recommendation/Assessment
  - Chairman's Risk Assessment
  - Capability Portfolio Management
- Post-Validation Processes and Interactions are Summarized for Each Phase of the Acquisition Process

Changes to JCIDS Documents

- All – Additional Net-Ready KPP Architecture Products Required IAW CJCSI 6212.01 & DoDAF 2.0. Link to Architecture Repository for All Except OV-1.
- Page Count Constrained: ICD – 10 Pages; DCR – 30 Pages; CDD – 45 Pages; CPD – 40 Pages (Page Count Includes Appendix A (Operational Viewpoint 1 (OV-1)), Does Not Include Appendix C (Acronym List) and Appendix D (Glossary)

Resources Required	FY xx (e.g. 12)	FY xx (e.g. 13)	FY xx (e.g. 14)	FY xx (e.g. 15)	FY xx (e.g. 16)	FY xx (e.g. 17)	FYDP Total	Life Cycle Cost
O&M								
RDT&E								
Procurement								
Personnel								
MILCON								
Total Funding								

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JCIDS Alternate Document Formats

- Reorganization of content within JCIDS documents
  - Provides better logical flow and reduced redundancies within documents, making it easier to meet document page limits.
  - Provides better traceability from source of requirements through ICD to successor documents.
  - No content has been removed, so all equities are still addressed without need for official re-staffing.
    - ICD Format: Sections reduced from seven to five. IS-ICD length and content now same as regular ICD.
    - CDD/CPD Format: Sections reduced from sixteen to twelve. IS-CDD format added.
    - DCR Format: Sections reduced from nine to five.
    - JUON/JEON Format: Sections reduced from thirteen to eight.
- General
  - Alternate document formats are intended to reorganize/streamline content for interim efficiencies until next JCIDS update.

Mandatory Key Performance Parameters (KPPs) and Key System Attributes (KSAs)

- Force Protection KPP (all manned systems)
- Survivability KPP (all manned; may be applicable to unmanned)
- Sustainment KPP (all ACAT I)
  - Materiel Availability
  - Operational Availability
  - Supporting KSAs
    - Materiel Reliability
    - Operation & Support Costs
- Net Ready KPP (all IS & NSS)
- Training KPP (all ACAT I)
- Energy KPP (all where provisions of energy impact operational reach, or protection of

No change

All O&S costs now included

Major changes

No longer termed "selectively applied". Detailed instructions added to Manual.

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Net-Ready KPP Changes

2008 - 2011 → **2012**

Net-Ready KPP Elements
CJCSI 6212.01E, 15 Dec 2008*

1. Compliant Solution Architecture
2. Compliance with Net-Centric Data & Services Strategies
3. Compliance with Applicable Global Information Grid (GIG) Technical Guidance (GTG)
4. Compliance with DOD Information Assurance (IA) Requirements
5. Compliance with Supportability Requirements to Include Spectrum Utilization & Information Bandwidth Requirements, Selective Availability Anti-Spoofing Module (SAASM) & the Joint Tactical Radio System (JTRS), as Applicable

Net-Ready KPP Attributes
JCIDS Manual, 19 Jan 2012)

1. Supports Military Operations
2. Is Entered and Managed on the Network, and
3. Effectively Exchanges Information

Three-Step Development Process

Step 1. Mission Analysis – Determines Attribute Details for Supports Military Operations

Step 2. Information Analysis – Determines Attribute Details for Entered & Managed on the Network, and Effectively Exchanges Information

Step 3. Systems Engineering & orts all 3

CJCSI 6212.01F, Net-Ready KPP, 21 March 2012, reflects these changes

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Net-Ready KPP Example

Attribute 1. Support to Military Operation

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Support to military operations	Mission: Tracking and locating (Finding, Fixing, Finishing) High-Value Target (HVT) Measure: Timely, actionable dissemination of acquisition data for HVT Conditions: Targeting quality data to the neutralizing/ tracking entity	10 minutes Area denial of HVT activities	Near-real-time HVT tracked, neutralized
	Mission Activities: Find HVT Measure: Location accuracy Conditions: Individual differentiation	100 meter circle Identify armed/ not armed	25 meter circle Identify individual

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Net-Ready KPP Example

Attribute 2. Enter and Be Managed in the Networ

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Enter and be managed in the network	Network: SIPRNET Measure: Time to connect to an operational network from power up Conditions: Network connectivity	2 minutes 99.8	1 minute 99.9
	Network: NIPRNET Measure: Time to connect to an operational network from power up Conditions: Network connectivity	2 minutes 99.8	1 minute 99.9

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Net-Ready KPP Example

Attribute 3. Exchange Information

NR-KPP Attribute	Key Performance Parameter	Threshold	Objective
Exchange information	Information Element: Target Data	10 seconds	5 seconds
	Measure: Dissemination of HVT biographic and physical data	Line of Sight (LOS)	Beyond LOS
	Measure: Receipt of HVT data	5 seconds	2 seconds
	Measure: Latency of data	NSA certified type 1	NSA certified type 1
	Measure: Strength of encryption	Permissive environment	Non-permissive environment
	Conditions: Tactical/Geopolitical		

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Required Architecture Data To Support the Net-Ready KPP

CJCSI 6212.01E, Dec 2008

DoDAF 1.5, 2007

ICD	CDD	CPD
OV-1	AV-1	AV-1
	AV-2	AV-2
	OV-1	OV-1
	OV-2	OV-2
	OV-3	OV-3
	OV-4	OV-4
	OV-5	OV-5
	OV-6c	OV-6c
	SV-2	OV-7
	SV-4	SV-2
	SV-5	SV-4
	SV-6	SV-5
	TV-1	SV-6
	TV-2	SV-11
		TV-1
		TV-2

JCIDS Manual, Jan 2012

DoDAF 2.02, 2010

ICD	CDD		CPD	
AV-1	AV-1	SV-1 or SvcV-1	AV-1	SV-1 or SvcV-1
AV-2	AV-2	SV-2 or SvcV-2	AV-2	SV-2 or SvcV-2
CV-2	CV-1	SV-4 or SvcV-4	CV-1	SV-4 or SvcV-4
CV-6	CV-2	SV-5a or SvcV-5	CV-2	SV-5a or SvcV-5
OV-1	CV-3	SV-6 or SvcV-6	CV-3	SV-6 or SvcV-6
OV-2	CV-4	SV-7 or SvcV-7	CV-4	SV-7 or SvcV-7
OV-4	CV-5	StdV-1 (TV-1)	CV-5	StdV-1 (TV-1)
OV-5a	CV-6	StdV-2 (TV-2)	CV-6	StdV-2 (TV-2)
	DIV-2		DIV-2	
	DIV-3		DIV-3	
	OV-1		OV-1	
	OV-2		OV-2	
	OV-3		OV-3	
	OV-4		OV-4	
	OV-5a		OV-5a	
	OV-5b		OV-5b	
	OV-6c		OV-6c	
	PV-2		PV-2	

ome charts have additional information in notes pages

Required Architecture Data To Support the Net-Ready KPP (con't)

- **All Viewpoint (AV):**
  - AV-1, Overview & Summary
  - AV-2, Dictionary of Terms
- **Capability Viewpoint (CV)**
  - CV-1, Vision
  - CV-2, Capability Taxonomy
  - CV-3, Capability Phasing
  - CV-4, Capability Dependencies
  - CV-5, Capability to Organizational Development Mapping
  - CV-6, Capability to Operational Activities Mapping
- **Data & Information Viewpoint (DIV)**
  - DIV-1, Conceptual Data Model
  - DIV-2, Logical Data Model
  - DIV-3, Physical Data Model

	ICD	CDD	CPD
AV-1	**X**	X	X
AV-2	**X**	X	X
CV-1	*R*	**X**	**X**
CV-2	**X**	**X**	**X**
CV-3	*R*	**X**	**X**
CV-4	*R*	**X**	**X**
CV-5		X	X
CV-6	**X**	**X**	**X**
DIV-2		**X**	**X**
DIV-3		**X**	**X**

R = Recommended **Blue = New**

Program Responsibility | **JCIDS Sponsor Responsibility** | **Joint Program/Sponsor Responsibility**

ome charts have additional information in notes pages

Required Architecture Data To Support the Net-Ready KPP

- **Operational Viewpoint (OV):**
  - OV-1, High-level Operational Concept Graphic
  - OV-2, Operational Resource Flow Description
  - OV-3, Operational Resource Flow Matrix
  - OV-4, Organizational Relationships Chart
  - OV-5a, Operational Activity Decomposition Tree
  - OV-5b, Operational Activity Model
  - OV-6a, Operational Rules Model
  - OV-6c, Event-Trace Description
- **Project Viewpoint (PV)**
  - PV-2, Project Timelines

	ICD	CDD	CPD
OV-1	X	X	X
OV-2	**X**	X	X
OV-3		X	X
OV-4	**X**	X	X
OV-5a		X	X
OV-5b	*O*	**X**	**X**
OV-6a		**X**	**X**
OV-6c	**X**	X	X
PV-2		**X**	

O = Optional **Blue = New**

Program Responsibility **JCIDS Sponsor Responsibility**

Some charts have additional information in notes pages

Required Architecture Data To Support the Net-Ready KPP

- **Systems Viewpoint (SV):**
  - SV-1, Systems Interface Description
  - SV-2, Systems Resource Flow Description
  - SV-3, Systems-Systems Matrix
  - SV-4, Systems Functionally Description
  - SV-5a, Operational Activity to Systems Function Traceability Matrix
  - SV-6, Systems Resource Flow Matrix
  - SV-7, Systems Measures Matrix
- **Services Viewpoint (SvcV)**
  - SvcV-1, Services Context Description
  - SvcV-2, Services Resources Flow Description
  - SvcV-4, Services Functionality Description
  - SvcV-5, Operational Activity to Services Traceability Matrix
  - SvcV-6, Services Resource Flow Ma
  - SvcV-7, Services Measures Matrix
- **Standards Viewpoint (StdV)**

	ICD	CDD	CPD
SV-1 or SvcV-1	**X**	**X**	**X**
SV-2 or SvcV-2	**X**	X	X
SV-4 or SvcV-4		X	X
SV-5a or SvcV-5	**X**	X	X
SV-6 or SvcV-6	**X**	X	X
SV-7 or SvcV-7	*R*	X	X
StdV-1 (TV-1)		X	X
StdV-2 (TV-1)		X	X

R = Recommended **Blue = New**

Program Responsibility **Joint Program/Sponsor Responsibility**

JCIDS Sponsor Responsibility

ome charts have additional information in notes pages

Information System (IS) ICD

- IS ICDs Implement the “Information Technology (IT) Box” Model
- IS ICDs are Required When the Solution Requires Research and Development, and Acquisition of Applications with a Projected Software Development Cost of Over $15 Million
- Not Used for Software Embedded as a Subset of a Capability Solution Developed IAW Other Validated JCIDS Documents
- IS ICD Applies to:
  - Commercial off the Shelf (COTS)/Government off the Shelf (GOTS) software, and associated hardware without modification
  - Commercial capability solutions with integrated, DoD-specific performance standards
  - Additional production or modification of previously developed U.S and/or Allied or interagency systems or equipment
  - Development, integration, and acquisition of customized

“IT Box” model calls for fewer iterations of validating documents through the JCIDS process by describing the overall IS program in the IS ICD, and delegating validation of detailed follow-on requirement and solution oversight to a flag-level organization other than the JROC or JCB.

Information System (IS) ICD (Con't)

- CDDs & CPDs are Not Required as Successor Documents for non-MDAP IS; for non-MDAP IS Sponsors Have Management Flexibility for Alternate Documents
- JCIDS Manual Provides Examples of Potential non-MDAP IS ICD Follow-On Documents (Actual Names, Content, and Approval TBD by the Delegated Validation Authority):

  Requirements Definition Package (RDP) – identifies KPPs and non-materiel changes

  Capability Drop (CD) – lower level document that specifies the characteristics of a "widget" or "app" for partial deployment of the solution

- FCB is Briefed Every 2nd Year After Validation on Progress

Business IS are not normally subject to JROC Review – However, FCBs have visibility of business case documents posted to KM/DS and if FCB decides the system has "joint equities" can recommend joint oversight.

JCIDS – Major Changes Summary

- **Three Processes** – deliberate, urgent, emergent
- **JCIDS Documents** – ICD, CDD, CPD, DCR page count restricted.
- **Information Systems ICD** – new document supports IT Box; non-MDAP IS do not require CDD/CPD follow-on.
- **Cost Tables** – required for IS ICD, CDD, CPD and DCR.
- **Staffing** – streamlined. Deliberate (83 days) & urgent/emergent (15/31 days).
- **Role of FCB Strengthened** – FCB Chair briefs JROC, not the JCIDS Sponsor and not the PM. FCB will review AoA results.
- **Prioritization** – new process. FCBs will prioritize capability requirements within their portfolios – input from the Sponsor will not be considered.
- **KPPs** – six “mandatory” (Force protection, survivability, sustainment, net-ready (major changes), training, and energy). If not used, must justify why not.
- **Draft CDD Required for TD Phase** – Component level; not submitted to KM/DS.
- **Affordability** – cost considered in document review and validation

ome charts have additional information in notes pages